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| 10/773,233 | 02/09/2004 | Takahiro Nobukiyo | Y2238.0057 | 3193 |
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| DICKSTEIN SHAPIRO LLP 1177 AVENUE OF THE AMERICAS (6TH AVENUE) NEW YORK, NY 10036-2714 | | | EXAMINER VO, NGUYEN THANH | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/773,233

Applicant(s)

NOBUKIYO ET AL.

Examiner

NGUYEN VO

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-82 is/are pending in the application.
4a) Of the above claim(s) 5, 6, 9, 11, 12, 20-27, 36-51, 56, 57, 60, 62, 63 and 75-82 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, 7, 8, 10, 13, 14, 16-19, 28-35, 52-55, 58, 59, 61, 64, 65 and 67-74 is/are rejected.
7) ☒ Claim(s) 15 and 66 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Specie III, claims 8 and 59 in the reply filed on 03/26/2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8, 14, 59, 65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 8, the claimed language "a ratio of the codes becoming equal or higher than a threshold value set in advance or a time in which the codes become equal to or higher than the threshold value" renders the claim indefinite. The reason is that a code cannot be compared with a threshold value.

As to claim 14, the claimed language "a ratio thereof" renders the claim indefinite because it is not clear as to what the ratio actually refers to. In addition, the claimed language that a data transfer time in which the codes becomes equal to or higher than a threshold value set in advance has no clear meaning (a code cannot be compared with a threshold value).

As to claim 59, it is rejected for similar reasons as set forth in claim 8 above.

As to claim 65, it is rejected for similar reasons as set forth in claim 14 above.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 2, 17, 30, 33, 53, 69, 72 are rejected under 35 U.S.C. 102(e) as being anticipated by the prior art admitted by applicant on pages 1-7 of the present specification (hereinafter simply referred to as the admitted prior art).

As to claims 2, 53, the admitted prior art discloses a mobile communication system for performing a resource management including transmission power control to form a high speed data transfer path for a mobile station (see the present specification, page 2 lines 4-11; page 4 line 26 to page 5 line 7), the mobile communication system comprising means which measures a state of use of the transmission power (see the present specification, page 4 line 26 to page 5 line 7; in this case, measuring an average value of transmission power as stated on page 5 lines 3-7 reads on "measures a state of use of transmission power" as claimed); and means which performs the resource management on the basis of a result of the measurement (see the present specification, page 2 lines 4-11; page 4 line 1 to page 5 line 7).

As to claim 17, the admitted prior art discloses a mobile communication system, comprising a base station (see the present specification, page 1 lines 24-25); a mobile station for which a shared channel shared with other mobile stations is set in order to perform data transmission with said base station (see page 1 lines 12-23); and a radio network controller (see page 1 lines 1-2) which notifies said base station of at least allocated power which is a maximum value of power of said shared channel (see page 3 lines 5-7), wherein means, which measures an average amount of use of the power in a data transmission time on said shared channel, is included in said base station (see page 4 line 26 to page 5 line 7).

As to claims 30, 69, they are rejected for similar reasons as set forth in claim 2 above. In addition, the admitted prior art further discloses HSDPA, HS-PDSCH, and DPCHs as claimed (see page 1 lines 12-17).

As to claims 33, 72, they are rejected for similar reasons as set forth in claim 17 above.

6. Claims 3, 18, 34, 54, 73 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller (US 2003/0189915).

As to claims 3, 54, Miller discloses a mobile communication system for performing a high speed data transfer path for a mobile station and performing resource management on the high speed data transfer path (see paragraph [0011]), the mobile communication system comprising means which measures a time rate at which data is sent on the data transfer path (see paragraphs [0035], [0036], [0041]); and means

which performs the resource management on the basis of a result of the measurement (see paragraphs [0035], [0036], [0041]).

As to claim 18, Miller discloses a mobile communication system, comprising a base station (see node B in paragraphs [0035], [0041]); a mobile station for which a shared channel shared with other mobile stations is set in order to perform data transmission with said base station (see paragraph [0015]); and a radio network controller (see the CRNC in paragraphs [0035], [0041]) which notifies said base station of at least resource allocation information of said shared channel (see paragraph [0041]), wherein means, which measures a time rate at which data is sent on said shared channel, is included in said base station (see paragraphs [0035], [0041]).

As to claims 34, 73, they are rejected for similar reasons as set forth in claim 18 above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1, 4, 7, 10, 13, 16, 28, 32, 52, 55, 58, 61, 64, 67, 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art.

As to claims 1, 52, the admitted prior art discloses a mobile communication system for performing resource management including allocation of codes to form a high speed data transfer path for a mobile station (see the present specification, page 1 lines 12-17; page 1 line 24 to page 2 line 3). The admitted prior art fails to disclose the mobile communication system comprising means which measures a state of use of the codes; and means which performs the resource management on the basis of a result of the measurement. The admitted prior art, however, admits that it is conceivable to calculate an average number of use of codes and inform the calculated value from the base station to the RNC so that the RNC performs the resource management on the basis of a result of the measurement (see page 6 lines 1-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the conventional resource allocation control with means which measures a state of use of the codes, and means which performs the resource management on the basis of a result of the measurement (as suggested by the admitted prior art), in order to optimize the resource allocation in the communication system.

As to claims 4, 55, first of all the rejection to claim 2 as set forth above is herein incorporated. As discussed in claim 2 above, the admitted prior art does disclose

calculating an amount of use of the transmission power on the basis of a data transfer time to the data transfer path, and performing the resource management on the basis of the average value as claimed (see the present specification, page 4 line 1 to page 5 line 7). The admitted prior art fails to disclose the mobile communication system comprising means which measures a state of use of the codes; and means which performs the resource management on the basis of a result of the measurement. The admitted prior art, however, admits that it is conceivable to calculate an average number of use of codes and inform the calculated value from the base station to the RNC so that the RNC performs the resource management on the basis of a result of the measurement (see page 6 lines 1-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the conventional resource allocation control with means which measures a state of use of the codes, and means which performs the resource management on the basis of a result of the measurement (as suggested by the admitted prior art), in order to optimize the resource allocation in the communication system.

As to claims 7, 58, see the admitted prior art, page 6 lines 6-10.

As to claims 10, 61, see the admitted prior art, page 4 line 26 to page 5 line 7.

As to claims 13, 64, since the admitted prior art discloses calculating average transmission power (see the present specification, page 4 line 26 to page 5 line 7), the admitted prior art would inherently disclose calculating the data transfer time in a measurement period set in advance as claimed.

As to claim 16, the admitted prior art discloses a mobile communication system, comprising a base station (see the present specification, page 1 line 25); a mobile station for which a shared channel shared with other mobile stations is set in order to perform data transmission with said base station (see page 1 lines 12-23); and a radio network controller which notifies said base station of at least the number of allocated codes which is a maximum value of the number of codes of said shared channel (see page 3 lines 3-7). The admitted prior art fails to disclose a means, which measures an average number of use of the codes in a data transmission time on said shared channel, is included in said base station. The admitted prior art, however, admits that it is conceivable to calculate an average number of use of codes (performed in the base station) and inform the calculated value from the base station to the RNC so that the RNC performs the resource management on the basis of a result of the measurement (see page 6 lines 1-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the conventional resource allocation control with means which measures a state of use of the codes, and means which performs the resource management on the basis of a result of the measurement (as suggested by the admitted prior art), in order to optimize the resource allocation in the communication system.

As to claims 28, 67, they are rejected for similar reasons as set forth in claim 1 above. In addition, the admitted prior art further discloses HSDPA, HS-PDSCH, and DPCCHs (see page 1 lines 12-17).

As to claims 32, 71, they are rejected for similar reasons as set forth in claim 16 above.

10. Claims 19, 29, 31, 35, 68, 70, 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Miller.

As to claim 19, the admitted prior art discloses a communication system comprising a base station (see the present specification, page 1 lines 24-25); a mobile station for which a shared channel shared with other mobile stations is set in order to perform data transmission with said base station (see page 1 lines 12-23); and a radio network controller which notifies said base station of the number of allocated codes which is a maximum value of the number of codes of said shared channel and allocated power which is a maximum value of power of said shared channel (see page 3 lines 3-7), wherein, means, which measures an average amount of use of the power in a data transmission time on said shared channel, is included in said base station (see page 4 line 26 to page 5 line 7). The admitted prior art fails to disclose means, which measures an average number of use of the codes in a data transmission time on said shared channel, is included in said base station as claimed. The admitted prior art, however, admits that it is conceivable to calculate an average number of use of codes (performed in the base station) and inform the calculated value from the base station to the RNC so that the RNC performs the resource management on the basis of a result of the measurement (see page 6 lines 1-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the conventional resource allocation control with means which measures a state of use of the codes, and means

which performs the resource management on the basis of a result of the measurement (as suggested by the admitted prior art), in order to optimize the resource allocation in the communication system.

Still as to claim 19, the admitted prior art fails to disclose means, which measures a time rate at which data is sent on said shared channel, is included in said base station as claimed. Miller discloses means, which measures a time rate at which data is sent on said shared channel, is included in a base station (see paragraphs [0035], [0041]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Miller to the admitted prior art, in order to optimize the resource allocation in the communication system (as suggested by Miller at paragraph [0041]).

As to claims 29, 68, the admitted prior art fails to disclose means which measures information on a data transfer time of the base station downlink as claimed. Miller discloses means which measures information on a data transfer time of the base station downlink (see paragraphs [0035], [0041]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Miller to the admitted prior art such that the codes are allocated based on the measured data transfer time, in order to optimize the resource allocation in the communication system (as suggested by Miller at paragraph [0041]).

As to claims 31, 70, the admitted prior art fails to disclose means which measures information on a data transfer time of the base station downlink as claimed. Miller discloses means which measures information on a data transfer time of the base

station downlink (see paragraphs [0035], [0041]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Miller to the admitted prior art such that the transmission power are allocated based on the measured data transfer time, in order to optimize the resource allocation in the communication system (as suggested by Miller at paragraph [0041]).

As to claims 35, 74, they are rejected for similar reasons as set forth in claim 19 above.

Allowable Subject Matter

11. Claims 8, 14, 59, 65 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

As to claims 8, 14, 59, 65, the prior art of record fails to disclose or render obvious the operation of calculation means as specified in the claims.

12. Claims 15, 66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 15, 66, the prior art of record fails to disclose or render obvious the operation of calculation means as specified in the claim.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wilberg (US 2003/0210660); Cha (US 2004/0090934); and Gunnarsson (US 2003/0202490) disclose radio resource management for a high speed shared channel.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGUYEN VO whose telephone number is (571)272-7901. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nguyen Vo/
Primary Examiner, Art Unit 2618
07/12/2008